

XII. INTRODUCED SPECIES. — *Carex acutiformis*, *C. brunnea*, *C. caryophylla*, *C. hirta*, *C. leporina*, *C. panicea*, *C. spicata*. *C. acutiformis* is reported only from the vicinity of Boston. *C. brunnea* has been collected but once — at Salem, Massachusetts. —

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OCCURRENCE OF SPECIES OF POLYCARPAEA LAM. (CARYOPHYLLACEAE) IN NORTH AMERICA

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Plants unknown to the author were discovered in a marginal area of sandhill off Overlook Drive, adjacent to the business district of Temple Terrace, Tampa, Florida. The plants, reminiscent of *Paronychieae*, were localized in openings of the vegetation, prevailingy of grasses and composites, and a few dwarf live oak. Their compact clusters of silver white cymes in late anthesis and in fruit, gave a touch of luster to the nondescript background. Collection no. 23410 was made October 15, 1960. Subsequently, nos. 24530, August 7, and 24779, October 18, 1961, were collected from the same site.

In the meantime, a search of the area revealed a wider distribution, east of Overlook Drive and 56th Street. The plant is well established on a grassy terrace adjoining the grounds of Temple Terrace School southside, and in the margin of a field about 1 block north of the school. Its sporadic occurrence was discovered in the area embracing largely the abandoned Henderson Hillsborough International Airport, extending over two miles northwest from Temple Terrace. There it is surviving in grassy and weedy vegetation along the old runways and road boulevards. Collection no. 24916, March 18, 1962 consists of post-mature plants with clusters of cymes, faded in everlasting fashion.

Discovery of the novelty raised the question of its specific identity. Dr. Carroll E. Wood, Jr., referred it tentatively to *Polycarpaea corymbosa* (L.) Lam. (*Achyranthes corym-*

bosa L. Sp. Pl. 205. 1753). The species with pantropic distribution was based on a Ceylon plant. An intensive study and investigation ensued. Specimens were sent to the Royal Botanic Garden, Kew, where they were critically examined in comparison with Kew materials from the various continents by Messrs J. P. M. Brennan and Peter Taylor. According to their esteemed report the Florida plant is different from *P. corymbosa*, the Asian-African taxon, but it differs less from *P. brasiliensis* Camb., the South American taxon. Since the identities of the above named taxa seem to be in need of an overall survey, the status of the Florida plant remains in question. However, it seems appropriate at this time to report the occurrence of *Polycarpaea* in North America. Meanwhile a study of the Florida plant is underway with hopes of gaining a better understanding of characteristics and affinities in relation to these known taxa.

It may suffice to point out the habit and the more prominent characteristics of the South American and the Old World taxa studied in collections. *P. brasiliensis* Camb., in St. Hilaire Fl. Brasil. merid. II. 132. (1829), a plant of Brazil, described without citations of particular specimens, is distinguished by thick, fusiform radix giving rise to several stems. Chodat et Hassler, in *Bulletin de L'Herbier Boissier* (2^{me}Ser.) 3:790 (1903) treated Paraguayan plants as *P. corymbosa* var. *brasiliensis*, with a diagnostic statement, "Herba perennis, radix lignosa napiformis —" citing, *Hassler* Y-aca, Dec., n. 6691 & Apa. Dec., n. 8123, (F, GH, US). The leaves in South American specimens are strongly revolute, appearing filiform, with deeply cleft stipules prolonged to long filaments, and a terminal bristle to 3 mm. long. The radix is often lacking in herbarium specimens and the plant may be too young for a thickened crown; however, the leaf character may be an aid in identification.

P. corymbosa (L.) Lam., Rohrbach in Mart. Fl. Bras. XIV. 2 (1872) p. 254, t. 58, fig. 1, is representative of the Old World taxon, an annual plant with slender tap root, stems to 30 cm. tall, with internodes usually longer than the leaves, strict or more or less diffusely branched. The leaves,

despite the pubescence, with short terminal bristles and slightly revolute margins, are similar to those of the Florida plant. The collection of Cooley and Siyambalagstenne from Dambulla, Ceylon, 14-1-57, (USF), the type region, well conforms to the description of the species. The ten mounted plants bear a strong resemblance to those of China, India and Africa. These, like the South American plants, retain the cotyledonary fascicles and the basal leaves of the lower nodes almost through the flowering period. In the Florida plant they are lost in preanthesis. Therefore a conclusion of its identity cannot be made before the plant as a whole is understood. To verify the occurrence of *Polycarpaea* in North America the plant is herewith described.

DESCRIPTION OF THE FLORIDA PLANT

Upright annual herb 6-10 (14) cm. tall; taproot to 25 cm. long, with relatively few secondary roots; stem profusely branched through the upper half to two-thirds of its length; internodes 5-15 mm. long, scintillessent and reddish under the loose white pilosity, or glabrate; nodes with singular swellings of yellowish fatty parenchyma, embracing the axils of leaves with stipules, floral bracts and to a lesser extent those of the sepals; leaves linear, with revolute margins, 1-2.5 cm. long, 1-1.5 mm. wide, opposite, appearing verticillate with axillary fascicles, glabrous, fleshy, essentially sessile, excepting a few, in the cotyledonary node, 1-nerved, the nerve prominent below and terminating in a bristle about 1 mm. long, and, like the internodes, scintillessent and becoming reddish; stipules scarious, cleft, the points prolonged to filaments, 3-5 mm. long; inflorescence leafy, cymes dichasial, compound, terminating the numerous branches; floral bracts scarious, entire or cleft, overlapping the pedicels; flowers lustrous-white, 2.8-3.1 mm. long, perigynous; hypanthium short, crater-like, reddish within in anthesis; sepals scarious glabrous, lanceolate-acute, dorsally rounded, margins convex in outline, with a reddish-orange, deltoid, median basal spot; petals ovate, to 1 mm. long, entire or erose at tips, rose pink, fading to orange, connate with the stamen bases around the rim of the hypanthium; filaments subulate, curved inward, .4 mm. long, anthers white, oblong closely surrounding the stigma in bud; pistil in anthesis 1 mm. long, the short stipe centered within the hypanthium base; stigma consistently nearly sessile, or with style .13 mm. long, minutely papillose, 3-fid; capsule 1.5 mm. long, usually shed without the stipe, 3-valved, bronzed, the valve margins yellow, the stigma with style often short-persistent to a strand of inner tissue of one of the valves; ovules 7, amphitropous, seeds subreniform, com-

pressed, brownish, .3 mm. long when mature; before fully mature, the thin integuments clearly reveal the transparent endosperm with the curved embryo around the convex margin; cotyledons accumbent. Flowers, late August to November; ripe seeds to Jan. Known only from Tampa.

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A NEW STATION FOR *Pinguicula vulgaris* IN ONTARIO.¹
— *Pinguicula vulgaris* L. is an amphi-atlantic species which has an uneven distribution both in Europe and North America. In the New World it is a boreal species which extends across Canada from Newfoundland to British Columbia and Alaska and south into northern New York, New Hampshire, Vermont, Minnesota, Michigan, Montana, Washington and Oregon. In Ontario *P. vulgaris* has been known for many years from the James Bay lowlands, Lake Nipigon and the north shore of Lake Superior, and the Bruce Peninsula which separates Georgian Bay from Lake Huron. A map of its distribution as known to Hultén is given in Kungl. Svenska Vetenskapsakademiens Handlingar, Fjärde Serien Band 7. Nr.1:231. 1958.

In the southern part of its range in northern New York State, this species is found only on wet limestone cliffs of deep cool ravines such as occur at Ithaca and the Finger Lakes. A similar situation was found in Wellington County, Ontario, near Elora, where the Grand River cuts through the Guelph Formation of Silurian limestone (dolomite).

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